

CLAIMS:

1. - 7. (CANCELLED) .

5 8. (NEW) A device (12) for optically regenerating DM
soliton pulses for use in optical propagation means
comprising first propagation means (10a) having abnormal
dispersion and second propagation means (10b) having
normal dispersion, said device comprising a synchronous
10 intensity modulator (14) serving, when placed in the
vicinity of the junction between the first and second
propagation means (10a, 10b), to perform time
synchronization on DM soliton pulses passing through it
and intensity fluctuation stabilization on said pulses,
15 the device being characterized by the fact that it
comprises noise suppression means (16) for suppressing
amplified spontaneous emission noise and that are
distinct from the synchronous intensity modulator (14).

20 9. (NEW) A device according to claim 1, in which the
noise suppression means (16) comprise a saturable
absorber.

10. (NEW) A device according to claim 1 or claim 2, in
25 which the noise suppression means are disposed upstream
from the synchronous intensity modulator (14) in the
propagation direction of the DM soliton pulses when the
device is inserted in the propagation means.

30 11. (NEW) An installation for optically transmitting DM
soliton pulses, the installation comprising:
 - propagation means (10) comprising first
 propagation means (10a) having abnormal dispersion and
 second propagation means (10b) having normal dispersion;
35 and
 - a device for optically regenerating DM soliton
 pulses in accordance with any one of claims 1 to 3;

the synchronous intensity modulator (14) of the regenerator device (12) being installed in the vicinity of the junction between the first and second propagation means.